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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,798	10/19/2000	Leslie V. Niles	5465	8692

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EXAMINER

SON, LINH L D

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/693,798

Applicant(s)

NILES, LESLIE V.

Examiner

Linh LD Son

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responding to the amendment received on February 25, 2005.
2. Claims 1, 2, and 33 are amended.
3. Claims 1-33 are pending.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-33 rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu et al, US Patent No. 5101402, hereinafter "Chiu", in view of Dietz et al, US Patent No. 6651099, hereinafter "Dietz".

6. As per **claims 1 and 18**, Chiu discloses a method for providing a unique identification of monitored network data instances flowing across various connections between networked devices, the unique identification being derived from information contained entirely within each instance of the network data, the method comprising:

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using at least one monitoring device to monitor a network data instance flowing across at least one data connection (Col 7 lines 15-39); deriving from the data instance certain information which collectively provides a unique identification (Col 9 lines 1-54) of the network data instance; However, Chiu does not disclose “assembling the derived information into an input string for a hash function; and using the output string of the hash function as a signature which represents a unique identifier of the network data instance”. Nevertheless, the method of deriving the unique identifier using the hash function to create the signature is taught by Dietz in (Col 6 lines 18-19). Therefore, it would have been obvious for one having ordinary skill in the art to incorporate the hash function to create the signature of the unique identification data captured by the Chiu’s invention. The result is a unique identifier signature of the session or data instance in the network. This signature is unique and minimal in sizing, which can be easily stored and processed (Col 10 lines 53-60).

7. As per **claims 2, 7-9, and 24-26**, Chiu discloses the method according to Claims 1 and 18, wherein the deriving step includes: deriving from the data instance a source and destination address for the data; deriving from the data instance a source and destination port associated with the networked devices (Col 3 lines 24-40, Col 8 lines 54-61, and Col 9 lines 3-25) (The Transport layer header info has the ports info and The Link layer header info has the address info); deriving from the data instance at least one sequence number associated with data instance (Col 9 lines 33-45).

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8. As per **claims 3, 4, 15, 20-21, and 32**, Chiu discloses the method according to Claims 1 and 18, which further includes: attaching the signature to at least one data report associated with the network data instance; and transmitting data reports and signatures from each monitoring device to a central collecting device (Col 12 lines 7-14).

9. As per **claims 5 and 22**, Chiu disclose the method according to Claims 3 and 20, wherein the central collecting device uses the signatures to eliminate duplicate data reports that might come in from different monitoring devices positioned at different locations on the network (Col 12 lines 19-28).

10. As per **claims 6 and 23**, Chiu discloses the method according to Claims 1 and 18, wherein network data instances are data packets as part of a TCP/IP (Transmission Control Protocol/Internet Protocol) client-server network (Col 1 lines 13-24, and Col 2 lines 24-39).

11. As per **claims 10 and 27**, Chiu discloses the method according to Claims 9 and 26, wherein the at least one sequence number includes both a client sequence number and a server sequence number (Col 9 lines 40-45, and Col 1 lines 17-24) (The sequence number cited is the number of packet sending back and forth by both ends).

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12. As per **claims 11 and 28**, Chiu discloses the method according to Claims 2 and 19, wherein the input string information does not include sequence numbers (Col 9 lines 3-9).

13. As per **claims 12 and 29**, Chiu discloses the method according to Claims 11 and 28, wherein the network data instances are datagrams as part of a UDP/IP (User Datagram Protocol/Internet Protocol) network (Col 9 line 21) (The ACK is the UDP packet).

14. As per **claims 13 and 30**, Chiu discloses the method according to Claims 1 and 18. However, Neither Chiu or Dietz discloses "truncating the signature to include fewer bits than the hash function output string". Nevertheless, It would have been obvious at the time of the invention for one having ordinary skill in the art to reduce the output string to a fewer bits. This operation will obviously create a uniform unique signature for storage and processing purpose.

15. As per **claims 14 and 31**, Chiu discloses the method according to Claims 1 and 18, which further includes: adding flag bits to the signature which indicate the type of application associated with the network data instance (Col 10 line 54-57).

16. As per **claim 16**, Chiu discloses the method according to Claim 1, wherein the monitoring device operates to directly monitor the network data (Col 7 lines 15-27).

17. As per **claim 17**, Chiu discloses the method according to Claim 1, wherein the monitoring device operates to indirectly monitor the network data (Col 7 lines 15-27).

18. As per **claim 33**, Chiu disclose method for providing a unique session key of monitored network data packets flowing across various connections between networked devices, the unique session key being derived from information contained entirely within each instance of the network data packet, the method comprising: using at least one monitoring device to monitor a network data packet flowing across at least one data connection (Col 12 lines 19-28); deriving from the data packet a source and destination address for the data is inherent in a TCP/IP network; deriving from the data packet a source and destination port associated with the networked devices is inherent in a TCP/IP network (Col 3 lines 24-40, Col 8 lines 54-61, and Col 9 lines 3-25) (The Transport layer header info has the ports info and The Link layer header info has the address info); deriving from the data packet at least one sequence number associated with data instance (Col 9 lines 33-45); attaching the unique session identifier to at least one data report associated with the network data packet (Col 12 lines 7-28); Chiu does use the hash function based on the current session key to access the session record which includes all the information derived above (Col 10 lines 18-23). However, "Chiu does not assembling the derived addresses, ports, and at least one sequence number information into an input string for a hash function; and using the output string of the hash function as the signature which represents a unique identifier of the network data

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packet". Nevertheless, the method of deriving the unique identifier using the hash function to create the signature is taught by Dietz in (Col 6 lines 18-19). Therefore, it would have obvious for one having ordinary skill in the art to incorporate the hash function to create the signature of the unique identification data captured by the Chiu's invention. The result is a unique identifier signature of the session or data instance in the network. This signature is unique and minimal in sizing, which can be easily stored and processed (Col 10 lines 53-60).

Response to Arguments

19. Applicant's arguments filed February 25, 2005 have been fully considered but they are not persuasive.

In regarding to the Applicant's argument on page 11, Applicant argues that "the signature and the hash are functionally distinct from each other" is correct. The signature in Dietz and the flow key in Chiu has similar make up of the extracted information of the packet of the flow (in Chiu Col 9 lines 1-15, and in Dietz Col 13 lines 20-23). The Hash method in Dietz is used to identify the signature by generating a hash of the signature itself, which includes a string of data to identify the uniqueness of the signature itself (in Dietz, Col 13 lines 30-36, and Col 6 lines 18-19). Therefore, it would have been obvious for one having ordinary skill in the art to incorporate the hash function to create the signature of the unique identification data captured by the chiu's invention (or similar to Dietz's signature in (Col 13 lines 20-23), as motivated by the

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uniqueness of the output of the string data from the hash function, and reduced size, which can be easily stored and processed (emphasis added). Therefore, the rejection basis dated 10/21/2004 is maintained.

Conclusion

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

22. Any inquiry concerning this communication from the examiner should be directed to Linh Son whose telephone number is (571)-272-3856.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Kim Y. Vu can be reached at (571)-272-3859. The fax numbers for this group are (703)-872-9306 (official fax). Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2100.

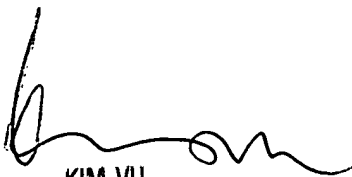
24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval IPAIR.I system. Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PMR only. For more information about the PAIR system, see <http://pzr-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Linh LD Son

Patent Examiner



KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2135